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ABSTRACT

Despite an increased interest in adolescent depression from theoretical and clinical perspectives, there have been few attempts to investigate depression in non-clinical populations. To identify demographic, sociocultural, and behavioral factors related to adolescent depression in a non-clinical population of urban adolescent females, a racially and socioeconomically heterogeneous sample of 116 girls was recruited from San Francisco public high schools. The subjects completed the Beck Depression Inventory, the Mooney Problem Check List, the Offer Self-Image Questionnaire (female form) and an adolescent biographical questionnaire. Results showed that 23 percent of the respondents were moderately to severely depressed, and 39 percent reported occasional suicide ideations. Level of depression was found to be significantly related to mother's occupation (if low status), geographical mobility (four or more moves), and number of self-reported problems. Age, race, religion, parental marital status, father's occupation, and number of siblings were not significantly related to depression level. The number of problems reported on the Mooney Problem Check List was much higher than is usually reported in high school samples. Subjects reported the highest mean number of problems on the following scales: finances, living conditions and employment, adjustment to school/work, the future, personal-psychological relations, and home and family. Lowest mean number of problems was associated with social and recreational activities, health and physical development, and courtship, sex and marriage. (JAC)

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Psychosocial Factors Associated With Depression In Urban Adolescent Females: Implications For Assessment

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Abstract

Psychosocial Factors Associated With Depression In Urban Adolescent Females: Implications For Assessment

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The major goals of this research were: 1) to determine the incidence of depression in a non-clinical population of urban adolescent females; and 2) to identify demographic, sociocultural and behavioral factors related to depression in this group. A racially and socioeconomically heterogeneous sample of 116 adolescent girls was recruited from public high schools in the San Francisco Bay Area. Measures used were: the Beck Depression Inventory, the Mooney Problem Check-List, the Offer Self-Image Questionnaire and an Adolescent Biographical Questionnaire. Level of depression was found to be significantly related to mother's occupation, geographical mobility and number of self-reported problems. Implications for assessment are discussed.

Psychosocial Factors Associated With Depression In Urban Adolescent Females: Implications For Assessment[1]

I. Introduction

In recent years there has been an increased interest in the phenomenon of adolescent depression in terms of theoretical and clinical perspectives (Easson, 1977; Berlin, 1978; French and Berlin, 1979; Malmquist, 1971; Toolan, 1971). However, there have been few attempts to investigate the incidence of depression in non-clinical populations, despite the rising rates of adolescent suicide, substance abuse, and juvenile delinquency, all of which have been linked to adolescent depression (Chiles, et al., 1980; Chwast, 1967; Greuling and DeBlassie, 1980; Finch and Poznanski, 1971; Gibbs, 1981, 1982; Offer, 1979).

Recent efforts to assess the incidence of depression in adolescence have utilized the Beck Depression Inventory, which has been found to differentiate effectively among samples of non-depressed, moderately depressed and severely depressed adults (Beck, 1967, et al., 1961), to be significantly related to clinical ratings of depression among psychiatrically hospitalized adolescents (Strober, et al., 1981) and college students (Bumberry, et al, 1978; Hammen, 1980) and to possess good psychometric properties (Beck, 1967; Beck & Beamesderfer, 1974; Williams, et al., 1972).

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1. This is a revised version of a paper presented at the annual meetings of the Western Psychological Association. San Francisco, CA, April, 1983.

An early empirical study of depression in a parochial junior high school population by Albert and Beck (1975), using the short-form of the B.D.I., found that 39% of all 7th and 8th grade students were rated as moderately to severely depressed, while 35% reported current suicidal ideation. The mean depression scores of the females, who comprised 42.8% of the sample, were higher for 8th graders and exceeded the mean scores of the males in 8th grade. A total of 44% of all the females in this sample were rated as moderately to severely depressed. A more recent study by Teri (1982) of a sample of 568 high school students in Vermont revealed that 32% of the sample were moderately to severely depressed and 36% reported suicidal ideation. While no significant main effect for gender was found in this study, females obtained extreme scores in the "high depression" group significantly more frequently than males. Thus, a total of 13.5% of the females in this sample were rated as severely depressed, with the highest mean scores reported among 14-year-old females. Thus, in both of these studies, which were conducted in the East on samples of predominantly white middle-class subjects from one-third to two-fifths of the adolescents experienced feelings of moderate to severe depression and over one-third of each group reported suicidal ideation. A consistent finding in both of these studies was the tendency of early adolescent females (age 13-14) to obtain high depression scores on the B.D.I.

II. Purpose and Goals of Study

The current study has three goals: 1) to assess the incidence of depression among adolescent females in a racially-heterogeneous West Coast city; 2) to determine if there are demographic or psychosocial factors related to depression; and 3) to determine the relationship between depression and number of self-reported problems.

III. Method

A. Sample

A total of 116 adolescent females enrolled in public schools in a San Francisco Bay Area city volunteered to participate in this study. The subjects were recruited from three public high schools whose students were drawn from three distinct geographical areas, socioeconomic levels and ethnic backgrounds. All females attending school on a given day were canvassed through their gym classes and those who expressed interest were then required to obtain parental consent to participate in the study. The students were given an oral and written description of the research project and were told that the project involved five questionnaires which would provide information on adolescent feelings, attitudes, behaviors and problems.

The subjects were distributed in grades 9-12, with a modal grade of 10. They ranged in age from 14-18 with a mean age of 15.7. Their ethnic composition was as follows: blacks - 84 (72.4%), whites - 19 (16.3%), Hispanics - 7 (6.0%), Asians - 6 (5.2%).

B. Measures

The following measures were used in this study:

1. Brief demographic questionnaire: this questionnaire included questions on age, race, religion, grade level, parental marital status, parental occupation and education, number of siblings, and number of household moves.

2. Beck Depression Inventory (BDI): a 21-item self-administered inventory which measures cognitive, behavioral, affective and somatic aspects of depression (Beck, et al, 1961). Scores can be converted to a depression rating in one of four levels ranging from none/minimal to severe depression. In a recent study by Teri (1982), the BDI was found to be a reliable and valid instrument for use with a high school population.

3. Mooney Problem Check-List (High School form): a 330 item self-administered inventory which measures the number and relative severity of problems/concerns in eleven areas of adolescent psychosocial functioning, represented by eleven scales. This instrument has been widely used with adolescent samples and its psychometric properties are described in the author's manual (Mooney and Gordon, 1950).

4 & 5. Two other instruments which were used in this study but will not be discussed in this paper are: the Offer Self-Image Questionnaire (female form) and an Adolescent Biographical Questionnaire, developed by the author. The results of these questionnaires will be presented in a forthcoming paper.

C. Administration of Study

The study was administered during or at the end of the school day at each high school site. All of these instruments were self-administered in groups of subjects ranging in size from 5-20. Students who did not complete the Mooney Problem Check-List during the session were permitted to take it home and given a self-addressed stamped envelope to return it to the investigator. Sessions lasted approximately two hours and subjects were assisted in completing all the measures. In an effort to minimize ethnic, sex and age effects in the research situation, the three women who administered the survey included a black, a Chicano, and a white, two of whom were young adult social work graduate students. Each researcher was assigned to a high school where her ethnic group was either in the majority or a substantial minority, e.g., one high school was predominantly white, one predominantly black, and one had a black-Hispanic balance.

D. Results

1. Sample Demographic Characteristics

Data were analyzed on the 116 subjects who returned completed BDI's and brief demographic questionnaires. Of this group, 71 (61%) returned completed Mooney Problem Check-Lists. The other 45 subjects did not complete the Mooney during the session and did not mail it back.

The participation rate varied with the three high schools, with the highest rate obtained at the predominantly black high school (10%), and the lowest rate (4%) from the black-Hispanic mixed high school. While all female students had an equal opportunity to participate in the study, the participation rate was influenced by three factors, i.e., the cooperation of school administrators and staff, the socioeconomic composition of the student body and parental attitudes toward the study. However, the students who participated in the study in each school were not significantly different from the non-participants in terms of age, grade, ethnic and socioeconomic distribution.

By using occupation of head of household as the primary criterion, subjects were categorized into the following SES levels: 26% middle and upper-middle class (white collar and professional), 44% working class (blue collar), 13% unskilled/domestic and 17% unemployed/unclassifiable (25.9% of the mothers were listed as "housewives"). They reported their religious affiliation as 63% Protestant, 19% Catholic, 8% Jewish and 10% other/-unaffiliated.

Nearly 40% of the subjects had parents who were divorced or separated, while 34% were from intact families and 26% reported that their parents had never been married. The mean number of siblings in this sample was 3.1, but the modal number was <u>one</u> (28% of subjects).

The group was a relatively mobile group with an average of 3.48 household moves since birth. While one-fifth of the group had moved twice (mode=2), the range was from no moves (15%) to 13 moves (0.9%).

2. Depression Ratings

The group mean depression score on the BDI was 9.98 (S.D. - 8.74), the median score was 8.35. and the modal score was 0.0. The distribution of scores ranged from 0 (9.5%) to 43 (0.9%) with a slightly positive skew of 1.17. By utilizing Beck's recommended cut-off score of 16 or above to designate moderate to severe clinical depression (Beck, 1967), 23% of the subjects were rated as "moderately to severely depressed", while 56% obtained a rating of "none-minimal depression" and 21% were rated as "mildly depressed". Nearly two-fifths (39%) of this sample also reported occasional suicidal ideations.

On the Mooney Problem Check-List, the mean number of problems reported was 68.32 (S.D. = 37.4) and a range of 2-190 problems underlined. The mean number of problems causing concern to these subjects was 23.6 (S.D. = 20.68) and a range of 0-69 problems circled. These means are much higher than those usually reported in studies using the Mooney with high school samples.

Subjects reported the highest mean number of problems on the following Mooney scales: Finances, Living Conditions and Employment (FLE: m=7.38), Adjustment to School Work (ASW: m=6.80); The Future: Vocational and Educational (FVE: m=6.71); Personal-Psychological Relations (PPR: m=6.62) and Home and Family (HF: m=6.16). Conversely, they reported the lowest mean number of problems on the following scales: Social and Recreational Activities (SRA: m=5.25); Health and Physical Development (HPD: m=5.35) and Courtship, Sex and Marriage (CSM: m=5.57).

3. Variables Related to Depression

Level of depression was moderately but significantly correlated to three independent variables in this study, e.g., mother's occupation (r=-.34, p=.03), number of household moves (r=.42, p=.008), and total number of self-reported problems (r=.37, p=.001). Mother's occupation was inversely related

to depression, i.e., subjects whose mothers were in higher status jobs obtained lower scores than subjects whose mothers were in lower status jobs. Those subjects who moved frequently (8 or more times) or occasionally (4-7 times) tended to have higher depression scores than those who moved infrequently (3 or fewer times).

The other independent variables were not significantly related to depression level, i.e., age, race, religion, parental marital status, father's occupation, and number of siblings. In the case of father's occupation, data was obtained on only 73 (63%) of the fathers, so this variable was not considered to be as valid an indicator of the subjects' socioeconomic status as mother's occupation. Parental education was also not a valid indicator of SES because the majority of subjects could not report this information about either parent with reasonable accuracy.

4. Group Comparisons on Depression

One way ANOVAs were performed on all independent variables with depression as the dependent variable. No significant effects were found for any of the variables. However, there were several interesting trends or patterns in the data. For mother's occupation, which is used in this study as the single best indicator of the subjects' SES, the highest mean scores were obtained by daughters of domestic or service workers (16.16) and unemployed mothers (11.76) while the lowest mean scores were obtained by daughters of white collar workers (7.97), professionals and business executives (7.62). The trend in group differences was indicated by an F ratio of 1.73, p=.12.

While no significant difference in level of depression between racial groups was found, there was an interesting pattern of scores with Asians obtaining the highest mean scores (m=16.66), whites the next highest (m=11.15), blacks next (m=9.29), and Hispanics the lowest score (m=9.28). Since the total number of Asians, Hispanics and whites in this sample was only

32 (comprising 27.6% of the sample), these three groups were combined into a non-black category and compared to the black subjects. While the black group mean score (9.29) was still lower than the group mean of the three combined groups (m=11.78), no significant effect was obtained (F=1.88, p=.17), although the trend was in the expected direction.

Discussion

One of the major goals of this study was to assess the incidence of depression in a sample of adolescent females in a racially-heterogeneous urban area on the West Coast, as earlier studies had been conducted on predominantly white middle-class samples from the East. In this predominantly black sample, the average depression score was 9.98, which is slightly higher than the mean score (m=8.80) of Teri's (1982) Vermont sample, but this sample had a smaller proportion of subjects rated "moderately to severely depressed" subjects than other samples of younger white adolescents (39% in the Albert and Beck Study, 1975) and a sample of adults (32%, Beck, 1967). However, this sample also had a slightly higher proportion reporting suicidal ideations (39% vs. 36% (Teri) and 35% (Beck). The discrepancy between the lower proportion (23%) of subjects rated as "moderately to severely depressed" and the higher proportion (39%) reporting occasional suicidal ideations can be partially accounted for by the fact that 80% of those rated as "mildly depressed" checked the BDI item "I have thoughts of killing myself, but I would not carry them out."

This finding of a minimal-to-mild level of depression in 77% of a predominantly black adolescent female sample is consistent with the results of a study of inner-city black high school students in Philadelphia, where a sample including 358 females did not obtain high depression scores on the brief form of the Hopkins Symptom Checklist (Freeman, et al, 1982), although they frequently endorsed two items, e.g., "feeling lonely" and "feeling blue".

The inverse relationship between mother's occupation and depression suggests that subjects from homes where mothers were unemployed or employed in domestic or service occupations were more likely to be depressed than subjects whose mothers were employed in professional, business or white collar occupations. One plausible interpretation of this finding in a sample where 60% of the subjects live in single parent families, usually with their mothers, is that those whose mothers are in lower-status jobs or unemployed and/or do not have fathers who are able to provide them with compensatory economic and social stability, may experience greater feelings of stress and insecurity than those whose mothers work in higher-status jobs and/or have intact families. Recent research suggests that low SES adolescents, regardless of race, experience higher levels of negative life change and that these changes are related to self-perceived health status and psychosocial adjustment (Gad and Johnson, 1980).

Mobility also showed a significant positive relationship to level of depression, that is, girls who moved more frequently were more likely to be depressed. While very few empirical studies have investigated the relationship between moving and adolescent mental health, the theoretical and clinical literature suggests that frequent moves may be particularly traumatic for adolescents because their peer relationships are disrupted and their fragile sense of identity may be threatened (Shaw, 1979; Tooley, 1970; Werkman, 1979).

A significant positive relationship was also obtained between level of depression and total number of problems reported on the Mooney Problem Check-List. This is not a surprising finding and is consistent with Teri's (1982) finding that higher depression scores were related to significantly higher levels of overall maladjustment in her sample. Hudgens (1974) has also shown a relationship between life stress and depression in medically-ill

adolescents. Further, it is interesting to note that this sample of urban female adolescents reported more frequent problems in the areas of general living conditions, school work, future vocational and educational goals, interpersonal relationships and family relationships. The concern over interpersonal relationships was shared by adolescent females in two other recent studies of high school females (Teri, 1982; Freeman, et al., 1982) but the use of different instruments in the latter two studies elicited different overall patterns of concerns. However, the concern over "general living conditions" and "family relationships" may reflect particular socioeconomic and psychosocial stresses of this predominantly black, working-class sample.

Due to the skewed racial and socioeconomic distribution in this sample, significant differences between ethnic and SES groups were not obtained. However, as noted earlier, there are patterns in the data which suggest that ethnic and SES effects might have been obtained had there been more ethnic and SES variation. Clinical studies of adult and college populations have found differences among ethnic groups in reported levels of depression (Warheit, et al, 1975) and in depressive symptomatology (Marsella, et al., 1973, 1975). For example, in Marsella's (1973) study of college students in Hawaii, Asian females had higher mean scores on the BDI than white females. Community and outpatient surveys of depression have also indicated that SES is inversely related to depression and, when it is controlled, wipes out ethnic differences (Warheit, 1975; Derogatis, et al., 1971). These studies have concluded that SES is the most powerful single predictor of depression in adults (Warheit, 1975; Derogatis, et al., 1971).

Finally, studies of delinquent females have linked depression to delinquency (Chiles, et al., 1980; Chwast, 1967). Gibbs (1981) found that depression and suicidal behavior among delinquent females varied significantly

by ethnicity. Thus, sociocultural variables such as ethnicity and SES may be moderator variables in depressive symptomatology both in delinquent and in non-delinquent adolescent females. However, further studies on racially and socioeconomically heterogeneous samples are needed to test this hypothesis.

The limitations of the study include a low return rate and a sample which is self-selected. The return rate was highest in the high school where the administrators and staff were most cooperative and supportive of the study, where permission was granted to conduct the study during the school day, and where parental permission was most easily obtained. In the two high schools with lower return rates, the survey was administered at the end of the school day when many students either had to leave for part-time jobs, extra-curricular activities, or babysitting for younger siblings. Parental permission was also more difficult to obtain in the high schools with both the highest and the lowest SES student populations. Thus, there is a possibility that the students who volunteered to participate may represent a more troubled or deviant group within their high schools. Since the sample is non-random and from a non-clinical population, the results must be interpreted with caution and not generalized to all adolescents or to all depressed adolescents. Nonetheless, the total sample size of 116 adolescent females from a heterogeneous urban population, may provide some useful data on the psychosocial correlates of adolescent depression.

Summary and Conclusions

In this study, the Beck Depression Inventory, the Mooney Problem Check-List and a brief demographic questionnaire were administered to a sample of 116 urban adolescent females. This sample was predominantly black (72%), approximately three-fourths (74%) were from lower income families, and nearly two-thirds (65.6%) were from single-parent or reconstituted families, i.e., not living with both of their natural parents.

The mean depression score for this group was 9.98, falling just within the normal range on the BDI, with fewer than one-fourth (23%) rated as "moderately to severely" depressed. Subjects reported a higher than average number of problems (68.32) on the Mooney Problem Check-list, with an average of 23.66 problems causing them concern.

Significant relationships were obtained between depression and three independent variables, e.g., mother's occupation, frequency of household moves, and number of self-reported problems. No significant group differences were obtained for race or SES, but the data indicated a trend toward lower depression scores for blacks and Hispanics than for whites and Asians, as well as lower scores for subjects with mothers in higher-status occupations than for those with mothers in lower-status occupations.

If a clearer relationship between these sociocultural variables and adolescent depression could be demonstrated, it would also add an important dimension to the assessment and treatment of delinquent and psychiatrically disturbed adolescents, whose depressive symptomatology is often obscured by acting-out behaviors, psychosomatic symptoms, eating disorders, and other "depressive equivalents" (Lesse, 1974, 1979; Glazer, 1967; Toolan, 1962).

Future investigators should focus on the relationship between depression and sociocultural variables such as race and socioeconomic status, as well as its relationship to demographic variables such as household mobility and family composition. If large samples of ethnically and socioeconomically diverse adolescents could be obtained, the relationship of these variables to adolescent depression could be demonstrated. Such studies would be invaluable for clarifying the relationship between psychosocial factors and adolescent depression, as well as serving as the basis for the development of cross-cultural strategies for prevention, early intervention and treatment of an increasing mental health problem among American adolescents.

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